

Pinyon Dwarf Mistletoe

Disease on Colorado's Western Slope

Pathogen—Aerial shoots of pinyon dwarf mistletoe (*Arceuthobium dimaricatum*) are olive green to brown, about 3-5 inches (8-13 cm) long, and up to 1/6 inch (4 mm) diameter. Shoots often have a long, thin, and spreading appearance (fig. 1). Branching is fan-shaped.

Pinyon dwarf mistletoe is found throughout the pinyon range in the western quarter of Colorado but is absent in pinyon stands east of the Continental Divide (fig. 2).

Hosts—Pinyon dwarf mistletoe infects only pinyons.

Signs and Symptoms—Signs of infection include aerial shoots and basal cups. Symptoms include witches' brooms, swelling of infected branches, and dieback. This dwarf mistletoe may not result in well-developed witches' brooms, but those that do develop are usually small.

Impact—Pinyon dwarf mistletoe is considered less lethal than other dwarf mistletoes of the region. However, growth loss and mortality can be significant when infection is severe (DMR 5 or 6).

Other dwarf mistletoes greatly reduce seed production of their hosts, but such effects on pinyon are unknown. Reduced seed production could be particularly important in pinyon because the nuts are collected for food by humans and wildlife, and they are necessary for species reproduction.

Please see the Introduction to Dwarf Mistletoes entry for disease cycle and management information.



Figure 1. Female pinyon dwarf mistletoe plant parasitizing piñon pine. Note the olive-green color of shoots. Photo: Robert Mathiasen, Northern Arizona University.

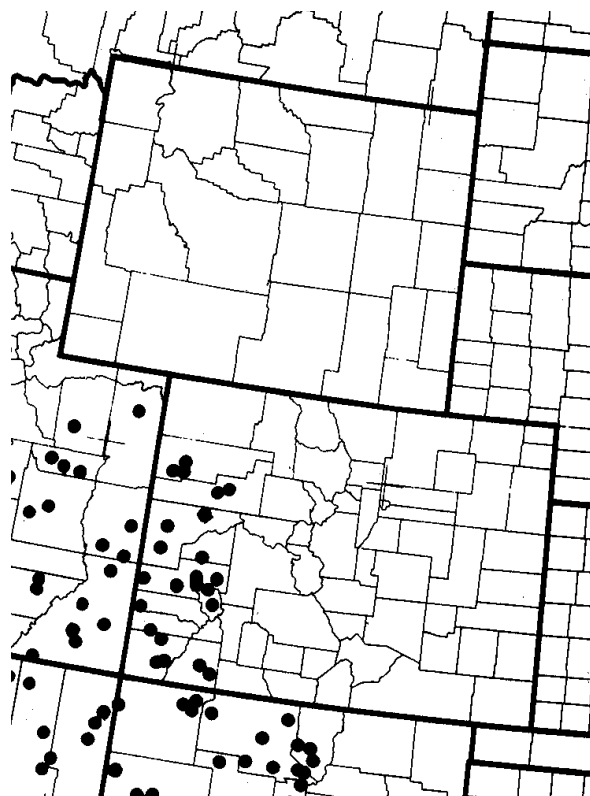


Figure 2. Distribution of pinyon dwarf mistletoe in the Rocky Mountain Region (from Hawksworth and Wiens 1996).

1. Hawksworth, F.G.; Wiens, D. 1996. Dwarf mistletoes: biology, pathology and systematics. Agricultural Handbook 709. Washington, DC: U.S. Department of Agriculture, Forest Service. 410 p.
2. Mathiasen, R.L.; Beatty, J.S.; Pronos, J. 2002. Pinyon pine dwarf mistletoe. Forest Insect and Disease Leaflet 174. Washington, DC: U.S. Department of Agriculture, Forest Service. 7 p. Online: http://www.na.fs.fed.us/spfo/pubs/fidls/pinyon_mistletoe/ppd_mistletoe.pdf.